Amendments to the Claims:

Please amend claims 1, 3, 5, 7-16, 18, 19, 21, and 24-28. The claims and their status are shown below.

1. (Currently Amended) A method for identifying a first polymer [[(4, 7)]] which is bound to a first phase (5) which reflects electromagnetic waves, which method has the following steps:

a) bringing the first polymer [[(4, 7)]] into contact [[to]] with a second polymer [[(3, 8)]] which has affinity to the first polymer [[(4, 7)]] and which is bound, by way of metallic clusters [[(2)]], to a solid second phase [[(1)]] which is pervious to electromagnetic waves,

b) irradiating the second phase [[(1)]] with electromagnetic waves, and

c) detecting [[the]] a change in the properties of the reflected electromagnetic waves, wherein the change in the properties of the reflected electromagnetic waves identifies the first polymer.

2. (Previously presented) The method as claimed in claim 1, characterized in that light is used as the electromagnetic waves.

3. (Currently Amended) The method as claimed in claim 1, characterized in that the property change which is measured is the absorption in a predetermined spectrum before and/or after the first polymer [[(4, 7)]] has been brought into contact with the second polymer [[(3, 8)]].

4. (Canceled)

5. (Currently Amended) The method as claimed in claim 1, characterized in that the property change which is measured is the chronological change in the absorption and/or reflection when the first polymer [[(4, 7)]] and the second polymer [[(3, 8)]] are brought into contact and/or separated.

6. (Previously presented) The method as claimed in claim 1, characterized in that the property change is measured at several angles of incidence which differ from each other.

7. (Currently Amended) The method as claimed in claim 1, characterized in that the metallic clusters [[(2)]] are evaporation-coated directly onto the second phase [[(1)]] or are bound to the second phase [[(1)]] by way of a layer which is formed from the second polymer [[(3, 8)]].

8. (Currently Amended) The method as claimed in claim 7, characterized in that a layer formed from the second polymer [[(3, 8)]] is applied to the surface of the second phase [[(1)]].

9. (Currently Amended) The method as claimed in claim 8, characterized in that at least one layer formed from the first polymer [[(4, 7)]] is intercalated between the layer which is applied to the surface and the layer which is bonded to the metallic clusters [[(2)]].

10. (Currently Amended) The method as claimed in claim 1, characterized in that a layer formed from the first polymer [[(4, 7)]] is applied to the surface of the first phase [[(5)]].

11. (Currently Amended) The method as claimed in claim 10, characterized in that a layer sequence formed from the first polymer [[(4, 7)]] and the second polymer [[(3, 8)]] is applied to the surface.

12. (Currently Amended) The method as claimed in claim 1, characterized in that the first polymer [[(4, 7)]] and/or second polymer [[(3, 8)]] employ and/or employs DNA, RNA, ssDNA or ssRNA or synthetic analogs thereof, protein, peptide, peptide nucleic acid (PNA) or a ligand thereof, or polyacrylic acid, polyethylenimine or poly(D-glucosamine).

13. (Currently Amended) The method as claimed in claim 1, characterized in that, in the step denoted with the letter a, at least one other polymer, which is bound to the first phase [[(5)]], is brought into contact with the second polymer [[(3, 8)]].

14. (Currently Amended) The method as claimed in claim 13, characterized in that the polymers [[(3, 4, 7, 8)]] are applied to the first phase [[(5)]] in the form of a barcode.

15. (Currently Amended) A device for identifying a first polymer [[(4, 7)]] which is bound to a first phase [[(5)]] which reflects electromagnetic waves, characterized in that a second polymer [[(3, 8)]], which has affinity to the first polymer [[(4, 7)]], is bound, by way of metallic clusters [[(2)]], to the surface of a second phase [[(1)]] which is pervious to electromagnetic waves.

16. (Currently Amended) The device as claimed in claim 15, characterized in that the metallic clusters [[(2)]] are formed from silver, gold, aluminum, copper or indium.

17. (Previously presented) The device as claimed in claim 15, characterized in that the electromagnetic waves are light.

18. (Currently Amended) The device as claimed in claim 15, characterized in that the second phase [[(1)]] is produced from a transparent material.

19. (Currently Amended) The device as claimed in claim 15, characterized in that the first polymer [[(4, 7)]] and/or the second polymer [[(3, 8)]] is/are DNA, RNA, ssDNA or ssRNA or synthetic analogs thereof, protein, peptide, peptidenucleic acid (PNA) or a ligand thereof, or polyacrylic acid, poly(D-glucosamine) or polyethylenimine.

20. (Previously presented) The device as claimed in claim 15, characterized in that a contrivance for determining the optical property of the reflected light is provided.

21. (Currently Amended) The device as claimed in claim 20, characterized in that the contrivance can be used to measure the absorption in a predetermined spectrum before and/or after the first polymer [[(4, 7)]] and the second polymer [[(3, 8)]] are brought into contact.

22. (Previously presented) The device as claimed in claim 20, characterized in that the contrivance can be used to measure the spectral shift of the reflective light.

23. (Previously presented) The device as claimed in claim 20, characterized in that the contrivance can be used to measure the optical property at several angles of incidence which differ from each other.

24. (Currently Amended) The device as claimed in claim 15, characterized in that the metallic clusters [[(2)]] are bound to the second phase [[(1)]] by way of a layer which is formed from the second polymer [[(3, 8)]].

25. (Currently Amended) The device as claimed in claim 24, characterized in that a layer which is formed from the second polymer [[(3, 8)]] is applied to the surface on the second phase [[(1)]].

26. (Currently Amended) The device as claimed in claim 25, characterized in that at least one layer which is formed from the first polymer [[(4, 7)]] is intercalated between the layer provided on the surface and the layer which is bonded to the metallic clusters [[(2)]].

27. (Currently Amended) The device as claimed in claim 15, characterized in that a layer which is formed from the first polymer [[(4, 7)]] is applied to the surface of the first phase [[(5)]].

28. (Currently Amended) The device as claimed in claim 27, characterized in that a layer which is formed for the second polymer [[(3, 8)]] is applied to the layer which is provided on the surface.

29. (Previously presented ) The method as claimed in claim 2, wherein said light is LASER light.

30. (Previously presented ) The method as claimed in claim 2, wherein said light is monochromatic light.

31. (Previously presented ) The method as claimed in claim 30, wherein said property change which is measured is the spectral shift of said monochromatic light.

32. (Previously presented ) The device as claimed in claim 17, wherein said light is LASER light.

33. (Previously presented ) The device as claimed in claim 18, wherein said transparent material is plastic or glass.